

State of Illinois
Department of Transportation

**CONSTRUCTION INSPECTOR'S CHECKLIST
FOR
EROSION CONTROL**

This checklist has been prepared to provide the field inspector a summary of easy-to-read, step-by-step requirements relative to the proper construction of project items related to Erosion Control. The following questions are based on information found in the Standard and Supplemental Specifications, Highway Standards, and appropriate sections of the Construction Manual.

Have you reviewed the contract Special Provisions, Supplemental Specifications and Plans? _____

PROGRESS PROJECT EROSION CONTROL

- A. National Pollutant Discharge Elimination System (NPDES) Storm Water Permit
1. Is your contract subject to the NPDES Permit requirements discussed in Construction [Memorandum No. 60](#)? _____
 2. If yes, is a copy of the [Storm Water Pollution Prevention Plan](#) (SWPPP) on file at the project site? _____
 3. Has a [Notice of Intent](#) been submitted to the IEPA 48 hours before any disturbance was undertaken? _____
 4. Is the Contractor placing the proposed controls in a timely manner, in accordance with SWPPP? _____
 5. Are inspections being conducted every seven calendar days or within 24 hours after a 13 mm (0.5 inch) rainfall or equivalent snowfall and the results reported on Form [BC 2259](#), NPDES/Erosion Control Inspection Report? _____
 6. If an inspection disclosed a violation of the SWPPP, was an [Incidence of Noncompliance](#) submitted to the IEPA within five days? _____
 7. Has the violation been corrected? _____
 8. Has this violation been noted on the following weekly [BC 2259](#), NPDES/Erosion Control Inspection Report? _____

9. Has a [Notice of Termination](#) been submitted to the IEPA when all permanent erosion control measures are in place and 70% viable vegetative cover, or equivalent, is achieved? _____

B. Erosion Control Plan

1. Does your contract contain temporary erosion control measures and/or special provisions or does the nature of the contract require an erosion control plan? (Art. 280.01) _____
2. If yes, do you have a copy of the required approved Erosion Control Plan? _____
3. The Erosion Control Plan provides for both temporary and permanent erosion controls to protect adjacent property, water courses, and completed construction. Are you familiar with your Plan? _____
4. Are those items needing special attention being protected prior to soil disturbances? _____
5. If so, have you analyzed your erosion control needs and determined which of the permanent erosion control items you need to supplement with temporary items and when they need to be installed? _____

SEEDING

A. Temporary Seeding

Temporary seeding will be expected to be placed upon disturbed ground, at regular intervals shortly after the ground has been worked but before the surface has dried and hardened. Two elements are necessary to establish seeding, first seed/soil contact and adequate moisture.

Traditional methods can be used to temporary seed, including spreading by hand, but without rain, your best means of providing moisture is seed incorporation with compaction. With temporary seeding we are trying to prevent soil particles from moving and to slow down the movement of water. Seed placed on top of the ground without incorporation or compaction will sprout only if it stays in place and has moisture available for several days.

1. Is temporary seeding growing? _____
2. Is compaction or incorporation method being used? _____

B. Prior to Seed Bed Preparation (Permanent)

1. Read Sections 211, 212, 250, 251 and 252 in the Standard Specifications. Do you understand the requirements? If not, ask your Resident, Field Supervisor or Landscape Architect. _____
2. Prior to commencing any permanent seeding operation, has the right-of-way been shaped, trimmed, cleaned up and finished in accordance with Section 212 of the [Standard Specifications](#)? _____
3. Prior to any seeding, is the seed Illinois certified seed, or has the Contractor had the seed tested and do you have the test results? _____
4. Is an inspector at the scales to initial tickets and witness the weighing of straw, emulsified asphalt, bulk fertilizer and agricultural ground limestone; items paid for on a weight basis? _____
5. Has the seeding equipment been properly adjusted and calibrated for the specified rate of application? _____
6. Are fertilizer nutrients being uniformly applied at the kilogram/hectare (pounds/acre) rate specified in the contract? _____
7. When fertilizer is delivered in bags, is each bag or part of each bag that cannot be duplicated, collected each day to determine the weight of fertilizer to be paid for? (After entering the pay quantity in the Quantity Book, burn or otherwise destroy the bags so they cannot be used again for determining pay weight.) _____
8. Do the fertilizer bags show the percent analysis, manufacturer, brand weight, and guarantee as required in Article 1081.08 of the Standard Specifications? _____
9. Is payment for fertilizer nutrients being determined on the basis of analysis and not on the total weight? (A mixed fertilizer with a 10-6-4 analysis contains only 7 kg of nutrients per 35 kg sack) (16 pounds of nutrients per 80-pound sack). _____
10. When their use is specified, is the agricultural ground limestone and fertilizer uniformly distributed over the areas to be seeded prior to the disking operation? _____
11. Is the Agricultural Ground Limestone, when specified, applied at the rate (multiplied by the producers Source Correction Factor) set by the Engineer or specified on the plans? Normally, 4.5 metric tons/ha (2 tons per acre) _____

Example:

Plan application rate = 2 tons per acre

Producer = Charleston Stone Co.; Stockpile (SW.)-13 F. Ledge

See MISTIC for Source Correction Factor (4-yr. average)

Correction Factor = 1.71

Application rate =

$4.5 \text{ MT/ha} \times 1.71 = 7.70 \text{ Mg/ha}$

Correction Factor = 0.92

Application rate =

$4.5 \text{ MT/ha} \times 0.92 = 4.14 \text{ Mg/ha}$

In either case you would pay the rate of 4.5 metric tons per hectare and the maximum pay rate
 $= 4.5 \text{ Mg/ha} \times 108\% = 4.86 \text{ Mg/ha}$

Correction Factor = 1.71

Application rate =

$2 \text{ t/ac} \times 1.71 = 3.42 \text{ t/ac}$

Correction Factor = 0.92

Application rate =

$2 \text{ t/ac} \times 0.92 = 1.84 \text{ t/ac}$

In either case, you would pay the plan rate of 2 tons per acre and the maximum pay rate
 $= 2 \text{ t/ac} \times 108\% = 2.16 \text{ tons per acre}$

C. Seed Bed Preparation (Art. 250.05)

1. Has the seed bed been worked to a depth of not less than 75 mm (3 inches) with a disc or other type of approved equipment reducing all soil particles to a size not larger than 50 mm (2 inches) in the largest dimension? _____
2. Is the disked seed bed free from debris, washes, gullies, clods and stones? _____

D. Sowing the Seed

1. Your plans will specify which Seeding Class is to be used and beginning and termination dates for seeding. (Table 1, Art. 250.07)? _____
2. Are the delivered seed lots tested and certified in accordance with Article 1081.04 of the Standard Specifications? _____
3. Are the seed bag weight tickets collected to ensure that the minimum number of pounds of each type of seed as shown in Table 1 of Article 250.07 is being sown? _____
4. Is the sowing of seed prohibited outside your designated season, during periods of high winds, or when the ground is frozen or crusted? _____
5. Are all legumes (clovers, vetches, lespedezas, alfalfas) being inoculated with an approved inoculant within 24 hours prior to sowing? _____

6. If a hydro-seeder is used, is 3 times the normal amount of inoculant being used and is the seeder hopper being agitated during use to prevent segregation of the seed mixture? _____
 7. Are the seeded areas being compacted with an agricultural roller or cultipacker at right angles to run-off within 12 hours after seeding and before mulching? (Not required on slopes steeper than 1:3 (V:H) on areas seeded with a hydraulic seeder or rangeland type grass drill, or if Method 3 Mulch is specified.) _____
 8. Are all authorized surfaces of permanent seeded area being measured and paid for in acres? (Exception: Form BC 981, Agreement on Accuracy of Plan Quantities can be mutually signed and the plan quantity paid.) _____
- E. Mulch (Section 251 of the Standard Specifications)
1. Has the mulch material been inspected and accepted as reasonably dry and free of noxious weed seeds? _____
 2. Has a mulch storage location (when needed) been selected on the jobsite that is away from structures, buildings, or other property to eliminate or minimize the possibility of fire damage? _____
 3. When mulching is specified, has the method (1, 2 or 3) as designated on the plans been determined and is the application made within 24 hours after seeding? If Method 2 mulch is specified, has the stabilizing procedure to be used been approved in advance? _____
 4. Is Emulsified Asphalt, Method 2, Procedure 1, being applied at a rate of not less than 300 L/metric ton (75 gallons/ton) of mulch, the exact rate specified by the Engineer? _____
 - (5) Are measures being taken to protect roadside hardware from emulsified asphalt damage? _____

SODDING

A. Material Inspection

1. Has the Contractor informed the Engineer where his/her source of sod will be prior to beginning his/her sodding operation? Peat or muck sod is unacceptable. (Art.252.11) _____
2. The sod must be inspected at the source by:
 - Illinois Department of Agriculture (Division of Plant Industries)

- A representative of the Department of Transportation _____
3. Is each load of sod accompanied by an [Illinois Department of Agriculture](#) Certificate of Inspection? Collect and retain. _____
 4. Has the load of sod been inspected at the jobsite for improper handling, drying out, and poor physical condition? _____
 5. Is all sod which has not yet been placed within 48 hours of its cutting, being placed only with your approval? _____
 6. If sod is specified as salt tolerant, has a material certification been furnished from the grower attesting to its composition? (Art. 252.11 and Art. 1081.03) _____
- B. Soil Preparation for Sod
1. Are the contract-specified rates of application for fertilizer nutrients (Art. 1081.08) and agricultural ground limestone (Art. 1081.07) being met? _____
 2. When specified, is agricultural ground limestone or fertilizer applied as required prior to completion of ground preparation operations so that it is completely incorporated in the area to be sodded? _____
 3. Has the soil surface been worked to a depth of not less than 75 mm (3 inches), and is it free from debris, washes, gullies, clods and stones not earlier than 24 hours before the sodding operations? (Art. 252.03) _____
 4. Is the soil surface moist at the time of sod placement? If not the Contractor shall apply water at the minimum rate of 5 L per square meter (1 gallon/square yard) immediately prior to placing the sod. (Art. 252.03) _____
- C. Placing the Sod
1. Is the sod not allowed to be placed when the sod or ground is frozen, or during extremely hot weather with temperature of 26 °C (80°F) and above? (Art. 252.04) _____
 2. Is the sod placed with tightly butted unexposed edges and staggered joints on moist, workable soil? (Art. 252.06) _____
 3. Is the ditch sod being placed with the longer dimension perpendicular to the flow of the ditch water? (Art. 252.06) _____
 4. When sod slopes are specified, is the operation started at the toe of the slope and is the sod placed with the larger dimension parallel with the ground contour? (Art. 252.06) _____

5. If the ground slope is 1:2 (V:H) or steeper, are stakes being used? (Art. 252.07) _____

- Shall be pointed lath or similar material.
- Drive with flat side against slope.
- Drive 150 mm (6 inches) into ground.
- Leave 13 mm (1/2 inch) above ground.
- Use not less than 4 stakes per square meter (yard) of sod.
- Use at least one stake per piece of sod.

D. Watering Sod

1. Is the sod being watered at a rate of 25 L per square meter (5 gallons per square yard) within 2 hours after it is placed (initial watering)? _____

Thereafter, are the following additional watering requirements being met? (Art. 252.08) _____

Number of additional watering applications, not to exceed 7. _____

Apply at a rate of 15 L per square meter (3 gallons per square yard) to each application. _____

2. After the eight required waterings, are any additional waterings being paid for per unit (1000L) (1000 gal) as Supplemental Watering? (Art. 252.09) _____

E. Measurement & Payment of Sod (Art. 252.13)

1. Is the sod knitted to the soil prior to acceptance and in a healthy growing condition before measuring? _____
2. Is the sod being measured in place and paid for in square meters (square yards)? _____

EROSION CONTROL BLANKET

A. Material Inspection

Does the erosion control blanket meet the requirements of Article 1081.10(a)(b) of the Standard Specifications and is each shipment accompanied by the manufacturers certification? _____

B. Placement Requirements (Art. 251.04)

1. Is the blanket, being placed within 24 hours after seeding operations have been completed? _____

2. Is the area to be covered relatively free of all rocks or clods over 40 mm (1 ½ inches) in diameter and all sticks and other foreign material? _____
3. Is the matting or blanket spread evenly and smoothly without stretching? _____
- Lay the blanket either parallel or perpendicular to slopes, when used on cuts and fills. _____
- Lay the blanket parallel to the flow of water when used in ditches, with no longitudinal seams within 600 mm (24 inches) of the ditch centerline. _____
- Are the blankets butted snugly end to end? _____
4. If Excelsior Blanket is used:
- Are the edges overlapped at least 50 mm (2 inches)? _____
- Are four staples used at each end of a roll and on 1.2 m (4 feet) centers for ditches, or 1.8 m (6 feet) for slopes, along each side, with a common row of staples used for adjacent pieces? _____
5. If Straw Mat is used:
- Are staples in a diamond pattern with a long dimension of 1.8 m (6 feet) in the direction of the slope, and the short dimension of 900 mm (3 feet) across the slope? _____
- Is a common row of staples used on adjoining rolls? On slopes, does the mat extend a minimum of 900 mm (3 feet) over the crest of the slope, and are six staples anchoring the uphill and downhill ends of the roll? _____
- C. Payment
- Is the Erosion Control Blanket being paid for at the contract unit price per square meter (square yard) of surface area protected? (Not by the number of rolls used multiplied by the number of meters (yards) per roll.) _____

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